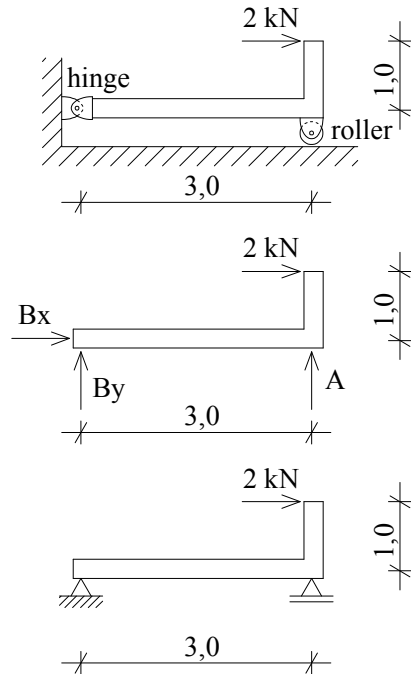


Simple beams

1)



Determine the support reactions!

Symbol of hinge:



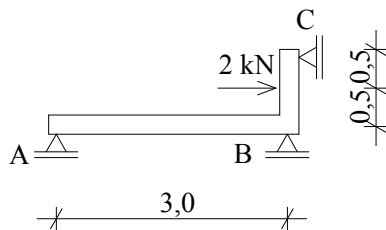
Hinge means reaction force of arbitrary direction.

Symbol of roller:



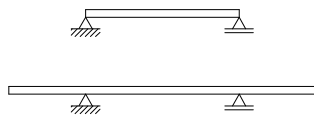
Roller means reaction force of a given direction.

2)



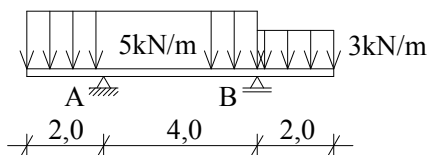
Determine the support reactions!

3)

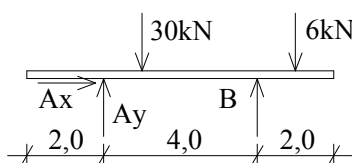


Simple supported beam

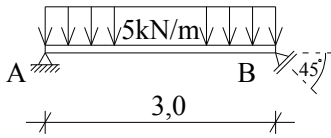
Simple supported beam with cantilever



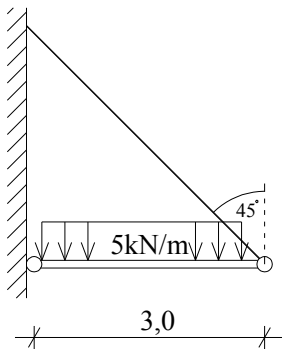
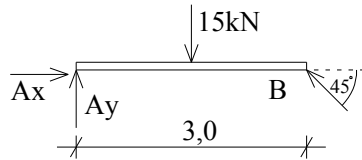
Determine the support reactions!



4)



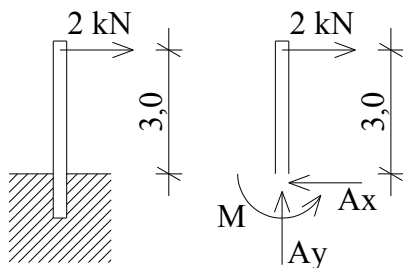
Determine the support reactions!



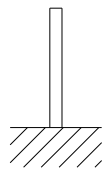
Same structure!

5)

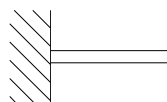
A fixed support provides reaction force in arbitrary directions plus a bending moment to prevent rotation of the support.



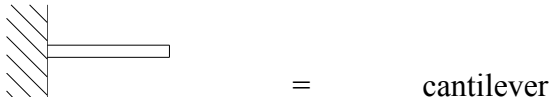
Symbol of the fixed support:



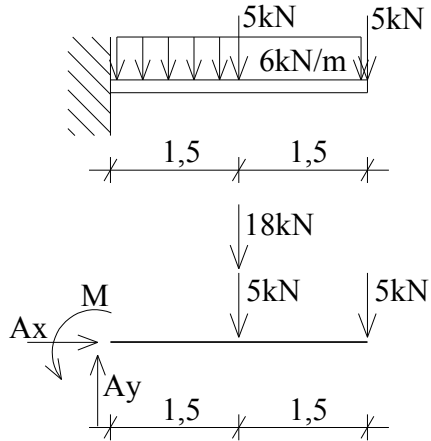
or



6)



Determine the support reactions of this cantilever!



7) The unit weight of the cantilever is 1 kN/m . Determine the support reactions!

